Amendments to the Claims

This listing of claims will replace all prior revisions and listings of claims in this application.

Listing of Claims

1. (Currently Amended) A method of estimating a pose of a human head in natural scenes comprising the steps of:

generating, a sparse representation of a human face by transforming a raw facial image into sets of vectors representing fits of the face comprising fits of whole facial features that represent the geometry (position, size and orientation) of the features, to a random, sparse set of model configurations; wherein the sparse representation is a collection of projections to a number of randomly generated possible configurations of the human face;

training, the sparse representation to a set of face(s) in known poses; and

determining, a pose of a head by comparing the trained representation(s) to a facial image.

2. (Cancelled)

3. (Previously Presented) The method according to claim 1 wherein the transforming step further comprises the step of:

collecting, salient features of the face image which are useful to estimate the pose of the face.

4. (Original) The method according to claim 3 wherein the transforming step further comprises the step of:

suppressing, irrelevant variations of face appearance.

5. (Original) The method according to claim 4 wherein the training step further comprises the steps of:

learning, using Support Vector Regression (SVR), a relation between the sparse representation and the pose(s).

6. (Withdrawn)